1997 Partnership Award Recipients

NERIT

Navy Eelgrass Study - Narragansett Bay

This study created an interagency effort from a previously disassociated group of efforts. The Coastal America Northeast Regional Implementation Team became aware that the Navy was working with the detection of submerged vegetation due to its military implications for hiding undersea mines, that the Corps was mapping seagrass because of its habitat value and significance for dredging projects, and that the FWS and National Estuary Program were interested in the resource for habitat management purposes. The coordination of these efforts affords an ongoing dialogue that is producing habitat mapping to be used for management and new tools for technological advancement.

On August 12-14, 1997, the team carried out its investigation into the acoustic properties of eelgrass in Narragansett Bay. The Corps integrated its 410-kHz sonar with differential GPS for accurate positioning and recorded acoustic backscatter from eelgrass beds. It completed a full hydroacoustic survey of Rose Island and partial surveys of Gould and Goat Islands. The NUWC Dive Team performed ground truth referencing by carrying out sampling in four quadrants and filming more than 50 minutes of video. NUWC engineers deployed a 100-kHz EG&G side-scan sonar to image areas of seagrass and the boundaries of the eelgrass beds.

In addition to providing a coastal research vessel and boat operator, the EPA provided lab space and expertise in biological sampling methods. All eelgrass samples obtained by the NUWC dive team were analyzed at the EPA lab by NUWC and EPA staff. A multi-agency paper (Army Corps, EPA, and NUWC) is in preparation. Entitled "Hydroacoustic Techniques for Detection and Characterization of Seagrasses", it will be presented at the International Conference for Remote Sensing for Marine and Coastal Environments.

Significant Achievements: This project has initiated research into a new technology that will benefit military and resource agencies. More important, a new dialogue of communication has been initiated between state and federal agencies working in Narragansett Bay, Rhode Island.

Coastal America Objectives/Regional Economic Benefit: The mapping and monitoring of eelgrass are a priority for habitat managers in the northeast. Additionally, assuring increased communication between military and resource agencies in Narragansett Bay fulfills the objectives of the partnering process.

Team Members: U.S. Navy Naval Undersea Warfare Center (NUWC), U.S. Army Corps of Engineers, EPA, U.S. Fish and Wildlife Service, and the Narragansett Bay Estuary Program

Northeast Regional Implementation Team

The NERIT process has provided a multi-agency ecosystem approach to coastal issues in the northeast region. The RIT developed a regional action strategy, which defined the major issues and special focus areas within the region. One of the key components of this strategy is to incorporate environmental protection and restoration objectives in regional development efforts. The result has been an aggressive effort to restore salt marshes along the northeast corridor that have been degraded by infrastructure development. In fact, the NERIT process was recognized by the Interagency Ecosystem Management Task Force in its 1995 report, which cited the Coastal America northeast coastal restoration effort as an example of a partnership ecosystem approach that works.

Significant Achievements: The present NERIT process emerged from an acknowledgment by the regional partners that many coastal insults do not need further study. They need resolution within a regional scale of prioritization. Their regional oversight process, which includes the Regional Principals of the partner agencies, now provides a regional ecosystem approach to management decisions for the federal partnership in the Northeast. This is truly a significant achievement.

Specifically, the NERIT partnership process has accomplished the following:

- developed a strategy to address both environmental/resource and infrastructure development objectives (e.g., used ISTEA funds to support wetlands restoration in conjunction with highway improvement);
- developed partnership agreements with the states in the region (i.e., Connecticut, Rhode Island, and Massachusetts);
- established the first Coastal America Coastal Ecosystem Learning Center (i.e., New England Aquarium);
- and established a Regional Principals group.

Coastal America Objectives/Regional Economic Benefit: NERIT"s efforts have contributed significantly to Coastal America"s goal to protect, preserve, and restore coastal ecosystems while ensuring sustainable development. The NERIT considers degraded salt marshes as the single most important restoration initiative in New England, but is also addressing a range of other issues in a watershed context. The team"s ecosystem approach and its innovative actions truly exemplify the spirit of Coastal America.

SERIT

Northern Right Whale Project & Hotline, Monitoring, and Early Warning System

The waters off southern Georgia and northern Florida are the calving grounds for the endangered Right Whale from November to April. The total population of these mammals is currently about 300, with about 11 calves born into the population each year. Human impacts are a major factor in the whales" ability to increase their numbers. Since the early 1990s, net entanglements and ship strikes have led to the average death and injury of one to two Right Whales each year. These impacts are believed to be retarding the recovery and growth of the population. Due to this continuing threat, the NMFS designated this area as critical habitat in June 1994.

These same waters are also used heavily by commercial, recreational, and military vessels traveling to and from highly valuable ports in this region. Jacksonville, the largest, services nearly 1,400 vessels, carrying five million tons of cargo each year worth nearly $1.8 billion. The cost to run one of these cargo vessels under normal conditions is about $35,000 per day. When these vessels are impeded during transit, by either collisions or regulations that reduce their speed, it results in increased transportation costs, reduced fuel efficiency, and decreased international competitiveness.

To mitigate the effect of these human activities, overflights of the waters off Georgia and northern Florida are conducted to locate the whales and relay this information to transiting vessel captains. In the 1996-97 whale season, flights have increased in frequency and aerial coverage. Last year, six whales died during the calving season. During this season, the Navy, Coast Guard, and port pilots have cooperated to inform ships of whale occurrence. The Navy has installed an acoustic array in the coastal waters of Jacksonville and has experimented with a towed array along the coast. An "early warning system" on the marine radio

has been established to inform all mariners immediately of the presence and locations of whales. Thus, vessel captains avoid collisions and can maintain an efficient speed into and out of the ports.

A citizen and volunteer network augments the work of scientists and professionals. Citizens distribute whale alert stickers and posters, and give presentations to local clubs and organizations. Beachside residents in homes, businesses, and hotels from St. Mary, Georgia to Bonyton Beach, Florida monitor the coast and report possible whale sightings to the Marine Resources Council (MRC), which monitors the public telephone hotline. MRC then conveys the report to the Florida DEP. Scientists respond by launching aircraft to confirm the sighting and to photograph each animal for identification by scientists from the New England Aquarium. The ports, the Navy, and the Coast Guard alert shipping interests. The aquarium and scientists from Florida DEP and Georgia DNR coordinate surveys.

Significant Achievements: Collisions between whales and vessels are avoided; information is gathered on Right Whales and vessel movement patterns and speeds to establish further avoidance measures for shippers, Corps dredges, and Navy and Coast Guard vessels; and the recovery of the whales in these waters is fostered. This project has also expanded public awareness and increased the use of volunteers from 125 in 1995 to nearly 350 in 1996-97.

Coastal America Objectives/Regional Economic Benefit: This monitoring project of the endangered Right Whales" movements and calving ground activities off the northern coast of Florida and southern Georgia has contributed significantly to our growing knowledge of this species" behavior, while also reducing shipping costs. Because the calving grounds are identified and individual animal movements are tracked, ships can now chart courses accordingly to maintain speed and avoid ship strikes with the Right Whale.

Team Members: National Marine Fisheries Service; Marine Mammal Commission; U.S. Navy; U.S. Army COE; Gray"s Reef National Marine Sanctuary; Southeastern Implementation Team for the Recovery of the Northern Right Whale; Florida Department of Environmental Protection; Florida Sea Grant; Georgia Department of Natural Resources; Florida Advisory Council on Environmental Education; Marine Resources Council of East Florida; Marineland, Florida; Georgia Land Trust; Port Canaveral; Georgia Port Authority; Fernandina Port; and Jaxport

Sandy Island Mitigation Advisory Panel

The Panel worked together to develop plans for, and to bring about the purchase of, a wetland mitigation bank totaling 16,825 acres in Horry and Georgetown counties south of Myrtle Beach, South Carolina. The Sandy Island tract of 9,164 acres was purchased from Sandy Island Associates, while the 7,661 acres in three adjoining tracks--known as the Bucksport, Oliver, and Sarvis tracts--were purchased from the Georgia-Pacific Investment Company. The Sandy Island tract consists of a combination of both important forested wetlands and a unique sand ridge upland habitat. A longleaf pine community that harbors numerous clusters of the federally endangered red-cockaded woodpecker, as well as many significant archeological sites, comprises much of the upland component.

Significant Achievements: This project will lead to the protection and conservation of 16,825 acres of important coastal forested wetlands and associated upland habits. It is significant that all the panel members agreed to accept protection of these existing important habitats as mitigation for the wetlands that would be impacted by future highway construction, both within the Winyah Bay system and elsewhere along the South Carolina coast. Traditionally, most would have insisted on some type of wetland restoration or onsite mitigation. By working together to make this mitigation bank a reality,

however, an important wetland system that would surely be impacted at some point in the future, will now be protected and remain available for the enjoyment of the public, now and into the future.

Coastal America Objectives/Regional Economic Benefit: This wetland mitigation bank is located about 15 miles south and west of Myrtle Beach, South Carolina. Myrtle Beach, with its nationally acclaimed Grand Strand area beaches and extensive golfing resorts, has become one of the fastest growing resort and residential areas in the nation. The rapid growth has resulted in threatening expansion westward of the Grand Strand that would ultimately impact the Sandy Island area if it were not protected through this banking effort. Also, the upland component of Sandy Island provides high and dry potentially developable land that is limited in the area. As a result of this project, a 16,825-acre ecologically sensitive wetland system has been purchased and will now be protected in its natural state in perpetuity.

This project contributes to the economic vitality of the region by providing acceptable mitigation for unavoidable wetland impacts associated with two of the region"s major transportation facilities: the Conway Bypass and the Carolina Bays Parkway. As a result, these important projects should become a reality in a much shorter time frame than would otherwise be expected if such a partnering effort had not been initiated. These two transportation facilities are considered essential for the area to maintain its economic vitality as one of the nation"s leading tourist destinations.

Team Members: Federal Highway Administration, EPA, National Marine Fisheries Service, S.C. Department of Health and Environmental Control, The Nature Conservancy, The Trust for Public Land, S.C. Department of Transportation, U.S. Fish and Wildlife Service, S.C. Department of Natural Resources, S.C. Office of Ocean and Coastal Resource Management, Winyah Bay Focus Area Task Force, S.C. Coastal Conservation League

Southeast Regional Implementation Team (SERIT)

The Southeast RIT has produced significant progress toward solving major ecosystem problems in the southeastern environment. The partnership process, led by SERIT, has been key to highly successful regional federal/state/non-governmental organization collaboration, technology transfer mechanisms, and education outreach efforts. SERIT has nurtured this process by:

- publishing a quarterly newsletter, "The Coastal Environment";
- creating a regional HomePage on the Internet;
- and serving as the host of the 1996 Coastal America Annual Retreat.

Significant Achievements: The most significant achievements of the SERIT-led partnership process include developing mutual trust and confidence between the regional partner agencies, improving communication between environmental issue stakeholders, and creating better understanding/appreciation of other partner agency missions/goals/constraints. These partnership process achievements have contributed immeasurably to the development and/or implementation of the following:

- recovery efforts for the Northern Right Whale (e.g., Florida, Georgia);
- projects to remove dams that block spawning runs of anadromous fish (e.g., Neuse River in North Carolina);
- and restoration of important wetland and upland areas (e.g., Munyon Island in Florida)

Coastal America Objectives/Regional Economic Benefit: The teamwork demonstrated by SERIT creates a sense of mutual issue ownership and leads to more complete solutions. This teamwork among Coastal America federal agencies, and state and non-governmental organization partners, is essential to sustained economic development in harmony with protection/maintenance of coastal ecosystem integrity. SERIT"s strategy/process emphasizes the following three areas:

- evaluating each project in terms of its impact on biodiversity and the application of sound ecosystem management principles;
- recognizing that areas of the southeast have experienced tremendous pressures from urban expansion, which represents a continuing threat to species and habitat;
- and studying the decline of important fisheries, caused in part, by obstacles to fish migrations that prevent adult fish from reaching the spawning grounds

SWRIT

Sonoma Baylands Project

This project was designed to assist in the restoration of tidal wetlands at the Sonoma Baylands site by demonstrating the beneficial use of dredged sediments on a 39-acre pilot site and then transferring those lessons to the entire site. The overall project has created new habitat for fish and wildlife by using dredged sediments from the Petaluma River and Oakland Harbor navigation channels to restore tidal marsh on a subsided former hay field.

Sonoma Baylands is a 348-acre former tidal wetland that was diked, drained, and used as an oat hay field for decades. The site was prepared for tidal restoration by constructing peripheral and interior levees and interior wave barriers, modifying three high voltage electrical transmission towers, and constructing three return flow weir structures. Dredged sediments from maintenance of the Petaluma River navigation channel and the deepening of the Oakland Harbor channels were then placed within the site to restore the original marsh elevations partially.

The project was constructed in two major phases. The first phase consisted of the 39-acre pilot unit that was restored using 207,000 cubic yards of maintenance dredged sediments from the Petaluma River channel. The pilot unit was opened to tidal action by breaching the old bayfront levee in January 1996. The second phase was the restoration of the remaining 309-acre main unit using about 1.7 million cubic yards of dredged sediments from the deepening of Oakland Harbor. The main unit was restored to tidal action in October 1996. It is expected that an existing adjacent marsh will provide abundant propagules for the natural establishment of vegetation within the Sonoma Baylands site. Monitoring the development of the restored marsh is an element of the overall plan and includes provisions for mediation if the monitoring results indicate a need for corrective action. Current monitoring activities include tidal hydrology, sediment deposition, fish and bird use, vegetation and benthic colonization, water quality, sediment organic chemistry, and channel morphology.

Significant Achievements: This project has restored tidal wetlands in a region that has lost about 82 percent of this resource. The pilot unit was also the first use of electrical resistivity technology to manage the hydraulic placement of dredged material for habitat restoration. This innovative use of technology greatly improved the ability of the construction managers to achieve the desired marsh elevations. The results from the pilot unit demonstrated that electrical resistivity technology could be relied upon to manage the construction of the main unit, as well as future marsh restoration projects using dredged material.

Coastal America Objectives/Regional Economic Benefit: The Sonoma Baylands project is restoring 348 acres of tidal wetlands through the selective placement of clean, dredged material from federal navigation channels. While providing for the maintenance of the federal channels and contributing to the local economy, the beneficial use of dredged material is also allowing the restoration of tidal wetlands in a region that has lost 82 percent of this resource.

Team Members: U.S. Army Corps of Engineers, EPA, National Marine Fisheries Service, California Coastal Conservancy, San Francisco Bay Conservation and Development Commission, San Francisco Bay Regional Water Quality Control Board, Sonoma Land Trust, Pacific Gas and Electric Company

NWRIT

Duwamish Estuary Habitat Restoration

Past dredging and filling activities had eliminated almost 99 percent of the estuarine habitat in the Duwamish River area, which is located in Seattle, Washington. Although past development activities have created one of the largest ports on the west coast, the natural resources that depend on estuaries have declined substantially. Many of the resources, such as salmon, are important both commercially and culturally. This Coastal America project attempts to demonstrate that marine commerce and critical habitats can co-exist. Three separate sites within the estuary were chosen to demonstrate a variety of habitat restoration techniques that could be implemented in an urban environment. Mudflats, emergent marsh, and intertidal sloughs were re-created in historic locations to benefit the variety of migratory fish and wildlife that are still dependent upon the estuary for survival.

Some of the novel elements of the project include the unique partnership between the agencies and the Port in developing this project. Also, one of the sites was owned by the General Services Administration. While this type of activity is not typically associated with its mission, GSA offered both property and financial assistance in completing the project. Many of the team members working on this restoration project still work in the estuary on other restoration activities. This project has fostered a long-term relationship between agencies that continues to provide benefits to the resources of the estuary.

Significant Achievements: The most significant achievement of this project is the relationship and trust that developed between the team members and their long-term commitment to the resource. Also, the Coastal America process allowed the team to take a limited amount of funds ($296,000) and leverage it into a much larger project (about $600,000). The restoration sites also allowed the team to attract other partners and provide an educational resource that has been used by such diverse groups as the Student Conservation Association and the University of Washington. The largest payoff has been to the many salmon and shorebirds that have used the sites since construction.

Coastal America Objectives/Regional Economic Benefit: The project is a perfect fit for the Coastal America objectives. It restores a tiny portion of an important estuarine ecosystem, but accomplishes this in a manner that does not impact the important marine commerce that is associated with Port activities. In addition, if this demonstration project is realized at a larger scale, it will increase the commercial viability of the salmon runs in the Duwamish River and Estuary.

Team Members: U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, EPA, Port of Seattle